METHODOLOGICAL NOTE ON THE ESTIMATED MIGRATION FLOWS OF 2020 AND THE ESTIMATED POPULATION ON 1.1.2021

BACKGROUND

This note presents the first estimates of migration flows for 2020 upon which the estimated population on 1.1.2021 is based. As regards immigration flows, the model to be applied is the same as the one outlined in the note entitled "Short methodological note on the estimated migration flows and the estimated population 1991-2014". The note is available at the following link:

http://www.statistics.gr/documents/20181/a483cf24-b563-4ef8-8ae9-d502d7d21675.

This model was used to estimate incoming migration for all subsequent years until 2019. Under the present circumstances and due to the pandemic, which had a significant impact on migration, it could not be applied. Thus, calculations of the usual migration were based on outgoing migration data from of other countries to Greece, while calculations of migration relevant to movements of asylum seekers were based on data from the Asylum Service.

The estimation of emigration is based upon data on immigrants from Greece to Germany, as reported by the German Statistical Office (DESTATIS), given that neither the Greek Ministry of Foreign Affairs nor any other country disposes any relevant data. Knowing that Germany is the more popular destination country for Greek emigrants, the data of Germany are used by applying regression models.

IMMIGRATION

Based on the data from Germany, it was estimated that the usual migratory movements to Greece decreased in 2020 compared to 2019 by approximately 21.92%. Therefore, since the standard incoming migration in 2020 was estimated at 68,461, the annual incoming migration in 2020 is estimated at 53,456.

Moreover, as data of the Asylum Service indicate, 30,765 persons, in 2020, are estimated to have entered the country due to the refugee crisis, remain in various parts of it and meet the requirements of the Regulation (EC) 862/2007 on immigration and international protection statistics to be considered as incoming migrants. Therefore, the total number of estimated incoming migration for 2020 is 84,221.

The distribution of 53,456 incoming migrants by sex, age, groups of nationalities / countries of birth / countries of previous residence is based on the data of the 2011 Population Census. The distribution of persons in the country due to the refugee crisis is based on data from the Asylum Service and the Ministry of Immigration Policy.

EMIGRATION

Estimates for the years 1991 - 2013 were produced on the basis of the results of the MIMOSA projects and immigration data of other countries. These estimates are included in the previously published study "Short methodological note on the estimated migration flows and the estimated population 1991-2014".

For the years from 2014 onwards the model to be applied is outlined in the note "Methodological note on the migration flows 2014 and the estimated population on 1.1.2016". The note is available at the following link:

 $\underline{http://www.statistics.gr/el/statistics?p_p_id=documents_WAR_publicationsportlet_INSTAN}\\ CE\ .$

A regression model, based on available data on immigrants from Greece to Germany, as reported by the German Statistical Office DESTATIS, was selected.

The regression formula that was selected is the following:

$$E_t = 6,755.205 + 3.157393*D_t$$

where E_t is t total emigration during the year t and D_t is data on migration from Greece to Germany for the same year according to DESTATIS.

By applying the regression formula to the 22,513 immigrants from Greece to Germany according to Destatis data for 2020, the resulting estimate for total emigrants is **77,837**.

Disaggregation by sex and age for emigrants, German data on immigration from Greece were also used.

ESTIMATED POPULATION ON 1.1.2021

On the basis of the demographic equation Pt+1=Pt+Bt-Dt+It-Et, where,

 $P_{2020} = 10,718,565$ (population 1.1.2020)

 $B_{2020} = 84,767$ live births

D₂₀₂₀ = 131,084 deaths (usual residents abroad excluded)

 $I_{2020} = 84,221$ (immigrants estimation)

 $E_{2020} = 77,837$ (emigrants estimation)

the estimated population on 1.1.2021 is thus: $P_{2021} = 10,678,632$.